(54) IMAGE SIGNAL ANALYZATION SYSTEM

(57) Abstract:

PURPOSE: To simplify the design of a code book and to easily perform a shape analyzation by providing a block extraction means, a storage means, an inner product calculation means for plural steps and an inner product result retention means.

CONSTITUTION: A block extraction means consecutively extracting blocks composed of a prescribed number of picture elements from an input image, and a storage means 9 storing a set of differential representative vectors to be obtained by differentiating the representative vectors arranged at several steps in the shape of a binary tree for each step of the binary tree, are provided. An inner product calculation means 12 in several steps calculating the inner product between the extracted blocks and the respective differential representative vectors at each step, and an inner product result retention means 14 retaining the inner product results at each step of the binary tree obtained by the inner product calculation means 12 as an index 13 indicating the shape of the input image, are also provided. Thus, the analyzation for one step in the binary tree can be executed by one inner product calculation between an average value separation block and the differential representative vector, and the shape analyzation can be facilitated.

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